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10/760,092	01/19/2004	Mitsuhiro Hirabayashi	450100-04887	2150

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EXAMINER

MOBIN, HASANUL

ART UNIT	PAPER NUMBER
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2168

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/760,092	Applicant(s) HIRABAYASHI ET AL.	
	Examiner HASANUL MOBIN	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/14/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9,11-35,37-41 and 43-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9,11-35,37-41 and 43-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. This communication is in response to the amendment filed on December 14, 2010. Claims 1-9, 11-35, 37-41 and 43-50 are pending in this office action for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-9, 11-35, 37-41 and 43-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inokuchi et al. (U.S. Patent No. 6,144,969, 'Inokuchi' hereafter, previously provided) in view of Parulski et al. (U.S. Patent No. 5,440,401, 'Parulski'),

hereafter, provided by the Applicants' IDS) and further in view of Hoffert et al. (US Patent No. 6,282,549, 'Hoffert', hereafter).

Regarding claims 1, 32 and 38, Inokuchi teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use, should be replaced with "to record"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium, said index file having a series of entries each being a block of extract information relating to and coordinated with one of the files recorded on the recording medium (In order to record data in the CD-R disc DISC in the CD-R disc device 1 started up, the CPU 6 divides the data made by the user into blocks according to a predetermined format under the control of CDRFS. Then the CPU 6 transmits the divided data and an instruction to the CD-R drive 5 so as to write the data via the interface circuit 13. When receiving the instruction, the CD-R drive 5 sequentially records the data for the data unit referred to as packet on the CD-R disc DISC, Inokuchi, Col 5, lines 42-45 and Fig. 1, 3 and 4. Wherein "for generating" is interpreted to be intended use, should be replaced with "to generate");

Inokuchi does not teach that

said index file comprising respective files, each associated with a different attribute selected from a plurality of attributes and each including a header and data related to said attribute,

classification means for classifying the block of extracted information included in each entry, according to the plurality of attributes,

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file; and

a display means to display data based on the classification and association.

However, Parulski teaches that

said index file comprising respective files, each associated with a different attribute selected from a plurality of attributes and each including a header and data related to said attribute (Parulski, Col 5, lines 1-15),

classification means for classifying the block of extracted information included in each entry, according to the plurality of attributes (Parulski, Col 5, lines 50-56),

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index_file (Parulski, Col 4, lines 19-48); and

a display means to display data based on the classification and association (Parulski, Col 6, lines 19-42 and Fig. 3, 72).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi and Parulski before him/her, to

modify Inokuchi with Parulski's image database incorporating low resolution index image data. One would have been motivated to do so in order to better way to index, classify and store image data taught by Parulski (Parulski, Col 1, line 50-Col 2, line 67).

Inokuchi and Parulski do not teach that

wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute, and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute.

However, Hoffert teaches that

wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute, and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute (Hoffert, Col 6, lines 58-67 and Col 7, line 55 – Col 8, line 4 illustrates streaming media to obtain appropriate content attributes and header data, content attributes, content analysis. Furthermore, Hoffert, Col 24, lines 5-13 discloses that the visual search results are typically displayed as a multiple thumbnail images per row, and multiple filmstrips. Clicking on images, waveforms or filmstrips then takes users to new web pages where more information is described about the media content).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi, Parulski and Hoffert before him/her, to further modify Inokuchi with the teaching of Hoffert's indexing of media content on a network. One would have been motivated to do so for the benefit of providing a search engine which is capable of searching the Internet or other large distributed network for multimedia information and to analysis of the content of files found in the search and for display of previews of the information and allowing users to rapidly scan a page of visual search results to see if they can find what they are looking for taught by Hoffert.

Regarding claim 2, Inokuchi as modified teaches that said index file generation means sets the reproduction order within a group of those entries which are selected from among the entries provided in the index file (The cache manager CAM creates a list of blocks to be written on the CD-R disc DISC in accordance with a predetermined priority from among the write cache block in accordance with the request at step SP1 of FIG. 10, Inokuchi, Col 13, lines 7-42)

Regarding claim 3, Inokuchi as modified teaches that the group of entries is a group of those entries which correspond to favorite ones of the files selected by a user (user data (block data) of the sequence file created by the user, Inokuchi, Col 15, lines 12-15 and Col 13, lines 7-12).

Regarding claim 4, Inokuchi as modified teaches that said index file generation means forms an entry which describes the reproduction order in the form of a table in the index file to set information representative of the reproduction order to the index file

(an index node D constituting the intermediate node of B*tree (B star-tree), the sequence key SQK (key1, key2, key3, . . .) of each head extent information EXT_x of each of the corresponding leaf nodes E, F or G is stored together with the node number. When the sequence keys (key1, key2, key3, . . .) are designated, the leaf nodes E, F or G corresponded by the node number are read out from the physical address LBA on the CD-R disc by referring to the node table, Inokuchi, Col 7, lines 28-35 and Fig. 4 and 5).

Regarding claims 5, 33 and 39, Inokuchi teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use and should be replaced with "to record"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium having a series of entries each being a block of extract information relating to and coordinated with one of the files (Please see claim 1 for this limitation);

said index file generation means dividing the extract information relating to any of the files to generate the index file, which includes a plurality of entries (As shown in FIG. 11(B), the program area is further divided. In the case of the 3 data track, the program area is divided into three tracks. At this time, the head of each track is provided with an index area (Index) and index information of the track is recorded on this part. Further, as shown in FIG. 11(C), the track comprises a collection of packet which constitutes a basic unit of data writing. As shown in FIG. 11(D), this packet is divided into four parts, a

link block, a run in block, a user data block having user data such as file information or the like and a run out block, Inokuchi, Col 14, lines 65-67, Col 15, lines 1-7 and Fig. 11 (A)-(D));

said index file generation means setting, to the entry of the divided extract information, as information representative of a mutual relationship between the entries, information indicative of an entry in which the succeeding divisional extract information is recorded (a recording state of the data onto the CD-R disc. In the multi-session packet recording method, a plurality of sessions (Session 1, Session 2, . . .) are subsequently recorded from the inner periphery to the external periphery on the CD-R disc in a spiral manner. On the inside of the recording area, a power calibration area (PCA) and a program memory area (PMA) are secured so that information for power adjustment and management information in each session can be recorded, Inokuchi, Col 14, lines 47-64 and Fig. 11, also please see Col 6, lines 55-67 and Col 7, lines 1-8);

said index file generation means setting, to the entry in which the succeeding divisional extract information is recorded, an identifier indicating that the entry has the succeeding divisional extract information recorded therein (Each session comprises a program area in which block data of the sequence (file) created and renewed by the user, and a lead-in area in which lead-in information representative of the start of the session and lead-out information representative of the end of the session is recorded. Incidentally, the lead-in information and the lead-out information is to be recorded after one session portion of the file data is recorded in the program area. The information is

intended to have compatibility with the CD-ROM, Inokuchi, Col 14, lines 56-64 and Fig. 11).

Inokuchi does not teach that

wherein the block of extracted information included in each entry is classified according to a plurality of attributes, and

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file; and

a display means to display data based on the classification and association.

However, Parulski teaches that

wherein the block of extracted information included in each entry is classified according to a plurality of attributes (Parulski, Col 5, lines 50-56), and

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file (Parulski, Col 4, lines 19-48), and

a display means to display data based on the classification and association (Parulski, Col 6, lines 19-42 and Fig. 3, 72).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi and Parulski before him/her, to modify Inokuchi with Parulski's image database incorporating low resolution index

image data. One would have been motivated to do so in order to better way to index, classify and store image data taught by Parulski (Parulski, Col 1, line 50-Col 2, line 67).

Inokuchi and Parulski do not teach that

wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute, and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute.

However, Hoffert teaches that

wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute, and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute (*Hoffert, Col 6, lines 58-67 and Col 7, line 55 – Col 8, line 4 illustrates streaming media to obtain appropriate content attributes and header data, content attributes, content analysis. Furthermore, Hoffert, Col 24, lines 5-13 discloses that the visual search results are typically displayed as a multiple thumbnail images per row, and multiple filmstrips. Clicking on images, waveforms or filmstrips then takes users to new web pages where more information is described about the media content*).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi, Parulski and Hoffert before

him/her, to further modify Inokuchi with the teaching of Hoffert's indexing of media content on a network. One would have been motivated to do so for the benefit of providing a search engine which is capable of searching the Internet or other large distributed network for multimedia information and to analysis of the content of files found in the search and for display of previews of the information and allowing users to rapidly scan a page of visual search results to see if they can find what they are looking for taught by Hoffert.

Regarding claim 6, Inokuchi as modified teaches that said index file generation means groups pieces of the extract information for each attribute to generate the index file and sets, to the index file, an identifier indicating to which one of the groups each of the pieces of the divisional extract information belongs (Inokuchi, Fig. 5).

Regarding claims 7, 34 and 40, Inokuchi teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use and should be replaced with "to record"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium having a series of entries each being a block of extract information relating to and coordinated with one of the files (Please see claim 1 for this limitation);

said index file generation means setting, where the files recorded on the recording medium include a plurality of child files generated by dividing one set of

contents and a parent file for managing the plural child files, to the entries relating to the child files and the parent file, as information representative of a mutual relationship between the entries, identifiers indicating that the files are the child files and the parent file, respectively (Inokuchi, Fig. 4 Sequence B*Tree, D Index Node (i.e., parent) and leaf node E-G (i.e., child) and identifiers keys1, keys 2... Wherein "for" is interpreted to be intended use),

Inokuchi does not teach that

wherein the block of extracted information included in each entry is classified according to a plurality of attributes, and

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file; and

a display means to display data based on the classification and association.

However, Parulski teaches that

wherein the block of extracted information included in each entry is classified according to a plurality of attributes (Parulski, Col 5, lines 50-56), and

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file (Parulski, Col 4, lines 19-48); and

wherein data based on the classification and association is provided to an output device (Parulski, Col 6, lines 19-42 and Fig. 3, 72).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi and Parulski before him/her, to modify Inokuchi with Parulski's image database incorporating low resolution index image data. One would have been motivated to do so in order to better way to index, classify and store image data taught by Parulski (Parulski, Col 1, line 50-Col 2, line 67);

Inokuchi and Parulski do not teach that

wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute, and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute.

However, Hoffert teaches that

wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute, and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute (Hoffert, Col 6, lines 58-67 and Col 7, line 55 – Col 8, line 4 illustrates streaming media to obtain appropriate content attributes and header data, content attributes, content analysis. Furthermore, Hoffert, Col 24, lines 5-13 discloses that the visual search results are typically displayed as a multiple thumbnail images per row, and multiple filmstrips. Clicking on images, waveforms or

filmstrips then takes users to new web pages where more information is described about the media content).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi, Parulski and Hoffert before him/her, to further modify Inokuchi with the teaching of Hoffert's indexing of media content on a network. One would have been motivated to do so for the benefit of providing a search engine which is capable of searching the Internet or other large distributed network for multimedia information and to analysis of the content of files found in the search and for display of previews of the information and allowing users to rapidly scan a page of visual search results to see if they can find what they are looking for taught by Hoffert.

Regarding claim 8, Inokuchi as modified teaches that said index file generation means sets, to the entries relating to the child files, information which indicates the entry relating to the parent file (please see claim 7 for this limitation).

Regarding claims 9, 35 and 41, Inokuchi teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use and should be replaced with "to record"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium having a series of entries each being a block of extract

information relating to and coordinated with one of the files (Please see claim 1 for this limitation);

said index file generation means registering information of file formats of the files into corresponding ones of the entries (Super block structure (i.e., format information of the files), Inokuchi, Col 15, lines 20-67 and Fig. 12-13. Please also see Col 5, lines 42-50).

Inokuchi does not teach that

wherein the block of extracted information included in each entry is classified according to a plurality of attributes, and

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file; and

a display means to display data based on the classification and association.

However, Parulski teaches that

wherein the block of extracted information included in each entry is classified according to a plurality of attributes (Parulski, Col 5, lines 50-56), and

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file (Parulski, Col 4, lines 19-48); and

a display means to display data based on the classification and association (Parulski, Col 6, lines 19-42 and Fig. 3, 72).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi and Parulski before him/her, to modify Inokuchi with Parulski's image database incorporating low resolution index image data. One would have been motivated to do so in order to better way to index, classify and store image data taught by Parulski (Parulski, Col 1, line 50-Col 2, line 67).

Regarding claims 11, 37 and 43, Inokuchi teaches a recording apparatus for recording desired files on a recording medium (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for recording" is interpreted to be intended use and should be replaced with "when recording"), comprising:

index file generation means for generating an index file of the files recorded on the recording medium having a series of entries each being a block of extract information relating to and coordinated with one of the files (Please see claim 1 for this limitation. Wherein "for generating" is interpreted to be intended use);

said index file generation means registering information unique to processing means for the files and information for specifying the processing means relating to the unique information (Super block information is unique information for the file to be processed, Inokuchi, Col 15, lines 20-67 and Fig. 12-13. Wherein "for" is interpreted to be intended use).

Inokuchi does not teach that

wherein the block of extracted information included in each entry is classified according to a plurality of attributes, and

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file; and

a display means to display data based on the classification and association.

However, Parulski teaches that

wherein the block of extracted information included in each entry is classified according to a plurality of attributes (Parulski, Col 5, lines 50-56), and

wherein each file of the index file is associated with only one attribute and each attribute of the plurality of attributes is associated with a respective file of the index file (Parulski, Col 4, lines 19-48); and

a display means to display data based on the classification and association (Parulski, Col 6, lines 19-42 and Fig. 3, 72).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi and Parulski before him/her, to modify Inokuchi with Parulski's image database incorporating low resolution index image data. One would have been motivated to do so in order to better way to index, classify and store image data taught by Parulski (Parulski, Col 1, line 50-Col 2, line 67);

Inokuchi and Parulski do not teach that

wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined

attribute, and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute.

However, Hoffert teaches that

wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute, and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute (*Hoffert, Col 6, lines 58-67 and Col 7, line 55 – Col 8, line 4 illustrates streaming media to obtain appropriate content attributes and header data, content attributes, content analysis. Furthermore, Hoffert, Col 24, lines 5-13 discloses that the visual search results are typically displayed as a multiple thumbnail images per row, and multiple filmstrips. Clicking on images, waveforms or filmstrips then takes users to new web pages where more information is described about the media content*).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi, Parulski and Hoffert before him/her, to further modify Inokuchi with the teaching of Hoffert's indexing of media content on a network. One would have been motivated to do so for the benefit of providing a search engine which is capable of searching the Internet or other large distributed network for multimedia information and to analysis of the content of files found in the search and for display of previews of the information and allowing users to

rapidly scan a page of visual search results to see if they can find what they are looking for taught by Hoffert.

Regarding claim 12, Inokuchi as modified teaches that said index file generation means registers the unique information into the index file by setting the unique information to the corresponding entries (Node table sets unique information to the corresponding leaf nodes such as nodes E, F and G, Inokuchi, Fig. 5).

Regarding claim 13, Inokuchi as modified teaches that said index file generation means registers the unique information into the index file by setting reference destinations of the unique information to the corresponding entries (Please see claim 12 for this limitation).

Regarding claim 14, Inokuchi as modified teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (B*tree (B Star-tree) of the sequence manager SQM (sequence keys are managed by SQM) has a tree structure which is constituted by an index node K as an intermediate node (branch) and leaf nodes E, F and G which actually contain the extent (EXTx) showing correspondence between the logical address and the physical address. Each leaf node E, F, and G stores single or a plurality of extent EXTx representing the relation between the logical address and the physical address LBA, which is shown by the sequence key SQK, in the ascending order of the sequence key SQK. More specifically, the extent EXTx manages (or represents) a block array in which the sequence key SQK continues in the ascending order as one unit out of the blocks sequentially in array on physical location

on the CD-R disc. The extent EXT_x consists of the sequence key SQK in the head block of sequential physical block managed by the extent EXT_x, the physical address LBA corresponding to the sequence key SQK, and length. The length represents a continuous physical block number represented by the extent EXT_x with the physical address LBA placed at the front in which the length is included. Consequently, for example, when the extent EXT_x is represented by (0,0 56 5), the physical address LBA on the CD-R disc corresponding to the sequence key SQK (logical address) which is referred to as 0,0 is 56, which represents that the data represented by the extent continues five blocks with the physical address LBA (=56) placed at the head on the CD-R disc (Inokuchi, Col 6, lines 50-67, Col 7, lines 1-50 and Fig. 3-5).

Regarding claim 15, Inokuchi as modified teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

Regarding claim 16, Inokuchi as modified teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

Regarding claim 17, Inokuchi as modified teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

Regarding claim 18, Inokuchi as modified teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

Regarding claim 19, Inokuchi as modified teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

Regarding claim 20, Inokuchi as modified teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

Regarding claim 21, Inokuchi as modified teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

Regarding claim 22, Inokuchi as modified teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

Regarding claim 23, Inokuchi as modified teaches that said index file generation means forms the index file from a data group of the extract information and a

management data group for managing the data group (Please see claim 14 for this limitation).

Regarding claim 24, Inokuchi as modified teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

Regarding claim 25, Inokuchi as modified teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

Regarding claim 26, Inokuchi as modified teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

Regarding claim 27, Inokuchi as modified teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

Regarding claim 28, Inokuchi as modified teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

Regarding claim 29, Inokuchi as modified teaches that said index file generation means forms the index file from a data group of the extract information and a management data group for managing the data group (Please see claim 14 for this limitation).

Regarding claim 30, Inokuchi as modified teaches that said index file generation means forms the index file from different files for the data group of the extract information and the management data group from each other (Please see claim 14 for this limitation).

Regarding claim 31, Inokuchi as modified teaches that said index file generation means groups the data group of the extract information for each attribute and forms the index file from different files for the individual groups of the data group and the management data group from one another (Please see claim 14 for this limitation).

Regarding claims 44, 45, 46 and 48, Inokuchi as modified teaches that the said index file generation means sets to the index file, as information representative of a mutual relationship between the entries, information indicative of a reproduction order of the entries or of the files corresponding to the entries (a recording state of the data onto the CD-R disc. In the multi-session packet recording method, a plurality of sessions (Session 1, Session 2, . . .) are subsequently recorded from the inner periphery to the external periphery on the CD-R disc in a spiral manner. On the inside of the recording area, a power calibration area (PCA) and a program memory area (PMA) are secured so that information for power adjustment and management information in each session

can be recorded, Inokuchi, Col 14, lines 47-64 and Fig. 11, also please see Col 6, lines 55-67 and Col 7, lines 1-8).

Regarding claim 47, Inokuchi teaches a reproduction method for reproducing files recorded on a predetermined recording medium based on a predetermined index file to provide the reproduced files to a user (a recording/reproducing apparatus and a file management method where file are being recorded on a medium, Inokuchi, Col 2, lines 10-25. Wherein "for reproducing" is interpreted to be intended use, should be replaced with "to reproduce"), said method comprising the steps of:

reproducing the index file, said index file being formed from a series of entries, each being a block of extracted information relating to and coordinated with one of the files recorded on said recording medium, and each index file comprising respective files, each associated with a different attribute and each including a header and data related to said attribute (please see claim 1 for this limitation),

Inokuchi does not teach that

classifying the block of extracted information included in each. entry according to a plurality of attributes;

a first associating step of associating each file of the index file with only one attribute;

a second associating step of associating each attribute of the plurality of attributes with a respective file of the index file; and

providing data based on the classifying step, first associating step and second associating step to an output device.

However, Parulski teaches that

classifying the block of extracted information included in each. entry according to a plurality of attributes (Parulski, Col 5, lines 50-56);

a first associating step of associating each file of the index file with only one attribute (Parulski, Col 4, lines 19-48);

a second associating step of associating each attribute of the plurality of attributes with a respective file of the index file (Parulski, Col 4, lines 19-48); and

providing data based on the classifying step, first associating step and second associating step to an output device (Parulski, Col 6, lines 19-42 and Fig. 3, 72).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi and Parulski before him/her, to modify Inokuchi with Parulski's image database incorporating low resolution index image data. One would have been motivated to do so in order to better way to index, classify and store image data taught by Parulski (Parulski, Col 1, line 50-Col 2, line 67);

Inokuchi and Parulski do not teach that

wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute and wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute.

However, Hoffert teaches that

wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute and wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute (*Hoffert, Col 6, lines 58-67 and Col 7, line 55 – Col 8, line 4 illustrates streaming media to obtain appropriate content attributes and header data, content attributes, content analysis. Furthermore, Hoffert, Col 24, lines 5-13 discloses that the visual search results are typically displayed as a multiple thumbnail images per row, and multiple filmstrips. Clicking on images, waveforms or filmstrips then takes users to new web pages where more information is described about the media content*).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi, Parulski and Hoffert before him/her, to further modify Inokuchi with the teaching of Hoffert's indexing of media content on a network. One would have been motivated to do so for the benefit of providing a search engine which is capable of searching the Internet or other large distributed network for multimedia information and to analysis of the content of files found in the search and for display of previews of the information and allowing users to rapidly scan a page of visual search results to see if they can find what they are looking for taught by Hoffert.

Regarding claim 49, Inokuchi as modified teaches that the desired files include video files and audio files (Inokuchi, Col 33, lines 15-26 discloses an advantage of the

invention is that since the same file can be used on all registered operating systems OSs, music (Audio) software and video software such as multimedia CD need not be manufactured in conformity to each operating system OS, thus allowing the manufacturer to reduce a manufacturing cost (i.e., the desired file can be a multimedia audio and video file). Furthermore, Inokuchi discloses information processing apparatus having recording medium such as CD-R to record files and managing the files among different Operating Systems. A skill person in the art would recognize that the recording medium would be able to copy/carry multimedia Audio/Video files).

Regarding claim 50, Inokuchi and Parulski do not teach that file generating means for converting the video files and the audio files into a QuickTime movie file; wherein the index file has an organization substantially the same as that of a QuickTime Movie file.

However, Hoffert teaches that file generating means for converting the video files and the audio files into a QuickTime movie file; wherein the index file has an organization substantially the same as that of a QuickTime Movie file (crawling and indexing of the network to discover multimedia files and to index them. Hoffert Figs. 2A-2C provides a description of a method for crawling and indexing a network to identify and index media files. HTML in the network is crawled to locate media files, block. Lexical information (i.e., textual descriptions) is located describing the media files and a media index is generated, Hoffert, Col 3, lines 4-22. Hoffert, Col 24, lines 38-67 and Col 28, lines 5-9 illustrates that the media files are to be QuickTime movie files to playback).

Therefore, it would have been obvious to one ordinary skill in the art at the time of invention was made having the teachings of Inokuchi, Parulski and Hoffert before him/her, to further modify Inokuchi with the teaching of Hoffert's indexing of media content on a network. One would have been motivated to do so for the benefit of providing a search engine which is capable of searching the Internet or other large distributed network for multimedia information and to analysis of the content of files found in the search and for display of previews of the information taught by Hoffert.

Response to Arguments

5. Applicant's arguments with respect to claims 1-9, 11-35, 37-41 and 43-50 have been considered but are moot in view of the new ground(s) of rejection in view of Hoffert et al. (US Patent No. 6,282,549, 'Hoffert', hereafter).

6. In response to applicant's argument on pages 26-28 that Inokuchi and Parulski, taken either alone or in combination, fail to disclose or teach that "classification means for classifying the block of extracted information included in each entry according to the plurality of attributes", as recited in claim 1", is acknowledged but deemed not to be persuasive.

The Examiner has given the meaning of the claim limitation "classification means for classifying the block of extracted information included in each entry, according to the plurality of attributes" its broadest reasonable interpretation. Parulski, Col 5, lines 50-56 and Col 6, lines 23-35 discloses the above limitation of claim 1. Parulski discloses that

when the montage button 210 (FIG. 1) is pressed by the user, the CD reader moves to the index file data track and reads some of the data from the index image records into memory. Depending on the number of stored images indicated by the index file 31 (FIG. 2), either a single montage, or a plurality of montage images, may be stored into memory 50. That is extracting blocks of information into the memory according to plurality montage image attributes such as high resolution or low resolution. Parulski discloses that the memory controller 46 instructs column counter 56 and row counter 58 to replicate each pixel of the index image record for two pixel periods and two line periods, in order to display a full screen, but relatively low resolution, image. As the first index image record is being displayed, the second index image record is read from the disc to a second portion of memory 50. Once the second image has been read from the disc, it is displayed while a third image is read from the disc and written into memory 50, overwriting the data from the first image. In this manner, all of the images in the index image file 31 (FIG. 2) can be rapidly displayed on the TV display 72 of FIG. 3, at a rate of approximately one per second. That is, in order to display in the full screen, the block of retrieved images are being classified as first index, second index etc. and in this manner all of the images in the index image file are being displayed on the TV. Thus, Parulski discloses the above limitation of claim 1 and respectfully submitted herein above. The Examiner has shown that Parulski discloses the argued limitation "classification means for classifying the block of extracted information included in each entry, according to the plurality of attributes" of claim 1. Since it appears that the

argued limitation of claim 1 is either disclosed or suggested by the prior art of record Parulski, the rejections given in the preceding office action are sustained.

7. In response to applicant's arguments on page 28 that "wherein each of the respective files corresponding to a predetermined attribute selected from the plurality of attributes, and each of the plurality of respective files stores starting bytes and data lengths of entries corresponding to the predetermined attribute and wherein the plurality attributes include a property attribute, a text attribute, a thumbnail attribute, and an audio attribute", against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the new reference Hoffert teaches the above argued limitation and is respectfully submitted herein above.

8. In response to applicant's arguments on page 28 that "wherein the index file has an organization substantially the same as that of a QuickTime Movie file", against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the new reference Hoffert teaches the above argued limitation and is respectfully submitted herein above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASANUL MOBIN whose telephone number is (571)270-1289. The examiner can normally be reached on Monday Thru Friday 5:30 to 1:00 and Saturday and Saturday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Tim T. Vo/
Supervisory Patent Examiner, Art
Unit 2168

/H. M./
Examiner, Art Unit 2168